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CASE
OF
OSTEO-SARCOMA
OF THE
LOWER JAW,

IN
ROBERT PENMAN,

(Aged 24 years,)

FROM
COLDSTREAM,

WHO LABOURED UNDER THIS MOST EXTENSIVE AND VERY
PAINFUL AFFECTION, FOR UPWARDS
OF NINE YEARS.

DRAWN UP AND PUBLISHED BY

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&c. &c.

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CASE, &c.

I HAPPENED to be on a visit to Sir John Marjoribanks, Bart. at Lees, in the month of June last, and was requested by L. M'Donald, Esq. his surgeon in Coldstream, to visit a patient of his who had for several years been afflicted with a painful and extensive tumour, growing out of the mouth, and which often bled most profusely, and frequently required the application of the actual cautery, or nitrate of silver. On 5th June I accompanied Mr M'Donald, and found the young man, about twenty-four years of age, much emaciated, and sitting on a low chair, leaning forward with his head, his chin resting on his breast, with his face most hideously distorted, and a very foetid, sanguineous, and purulent discharge from his mouth, and that part of the tumour projecting from the mouth, of a florid red colour, and having the appearance of a very large fungus, like a red cabbage, cleft in the middle, occupying the whole interior of the mouth, and attached to the whole extent of the lower jaw *. He appeared, in fact, to have no neck, excepting when looking up to the ceiling.

The tumour had completely displaced the cartilages of the trachea, and pushed them and the tongue altogether to one side. The tongue was raised against the right cheek, edgewise, as it were, between the teeth and cheek, almost at the angle of the jaw, and formed a considerable protuberance on the right side of the face †. A little further towards the right

* See Plate annexed, Figure 1.

A A Width of mouth, $5\frac{1}{2}$ inches.

b b b Circumference of mouth, 15 inches.

B B From neck below lobe of left ear to chin, 8 inches.

C C Vertex to chin, 13 inches.

D D Circumference of chin to vertex, 31 inches.

E E Length of face, 11 inches.

This measurement was taken again, shortly before the operation.

† See Plate, Figure 1. Letter F.

ear, could be felt the os hyoides and œsophagus, lying, as it were, on the right side of the neck, as the tumour occupied the whole anterior space between them and the sterno-mastoid muscle of left side, as also the entire space under the tongue, causing the chin to project, particularly to the left side. The jaws were separated by the tumour to the utmost extent possible, as there were at least four inches between the incisors of the upper and lower jaw. The tumour was cleft, as above described, into portions about the size of an orange, one of which excrescences extended over the whole of the left superior maxillary bone to the orbit. Some slight adhesions seemed to have taken place between the left cheek and the tumour, but the finger could be forced round, and almost as high as the orbit. The tumour filled the fauces completely, but not so as to obstruct the nasal passage, as he breathed freely by the nostrils. The whole mass could be moved at will by the patient, on moving alternately the temporal masseter, and other muscles of the jaw. The tumour felt hard as cartilage externally throughout the whole extent, except at portions appearing through the mouth, whence the hemorrhage seemed to proceed, and which he used to check, when slight, by tying or twisting a shawl or large towel round his head, and thus compressing projecting portions of the tumour forcibly. That part which was ulcerated, had several firm bands of new skin running through its surface, as if the wound was cicatrizing well, but these were soon absorbed, and the wound assumed a fungoid bloody appearance, frequently bleeding profusely; and in this state he had been, for several years, under the most active and intelligent surgeon's care, Mr M'Donald, in Coldstream*, who had been most assiduous in his attentions towards the unfortunate patient, who expressed the utmost gratitude for the kindness received at his hands†. Penman used to assist in

* He had no diarrhœa, or any other unfavourable symptom than those named.

† Penman could assign no cause for his disease. His parents are healthy. First observed, about nine years ago, when getting a tooth extracted, a small swelling, but not painful, on gum of grinding-teeth. He, some time after, had other three teeth extracted; but this seemed materially to ag-

earning a little, by dressing fish hooks, stuffing birds, &c. though altogether incapable of any great exertion, from the enormous size and profuse discharge from the tumour. He was perfectly sensible of his danger, and resigned to his fate, as being incurable, and in imminent danger of death. He occupied a great deal of time in the perusal of serious books, and said his Bible was his only comfort, as shewing him a future state, which, though afflicted here, he hoped to reach in bliss, and be relieved from suffering. He most readily allowed me, along with Mr M'Donald, to make a minute examination, though attended with very considerable pain to himself. I observed that the blood-vessels, and other important organs, did not seem entangled with the tumour, but that it seemed to have displaced, and grown out from among them, and that the vessels nourishing the tumour itself, seemed to be smaller than might have been supposed. The jaw being moveable, and the patient's health being upon the whole good, I immediately stated, that were he my patient, and if I resided in Coldstream, I would attempt the removal, which, although a most serious attempt, was the only probable way of saving the young man's life, as there was great likelihood of his very soon dying from suffocation, especially during the night, or on his lying down, from the discharge of pus, and loss of blood, undermining his strength, which was already greatly reduced. Being only on a professional visit, and it being out of my power to remain longer at Lees, Mr M'Donald thought it would be better that Pennan should come into Edinburgh, to be more immediately under my care, and strenuously recommended his compliance with my proposal to come here, and to undergo the operation, where the necessary assistance could more easily be obtained for his support. He at first declined, and assigned as a reason, that he had been operated upon without success in our Royal Infirmary, by an eminent surgeon, six years ago, and had seven ounces by weight of the tumour removed from the interior of the mouth,

gravate the pain and swelling, and caused him come into Edinburgh Royal Infirmary, as above stated.

attached to the lower jaw, which was cauterized several times at the diseased part.

Penman was discharged after being in the house eight or nine months, and returned home without being cured. In a short time the disease returned, and increased to a great extent; and in two years after his discharge from the Royal Infirmary, he came to Edinburgh again in quest of some means of relief. He consulted one of the most celebrated and successful operative surgeons of the present day, and several others, as also an eminent physician, who declared that there was very little probability of any thing being done effectually to relieve him, and he, of course, returned to Coldstream, where I found him as above described. On being urged, he said he would think seriously of what I proposed, and hoped he might be saved as well as the poor woman at Fireburn-mill *. We then left him, and as I was obliged to return to Edinburgh, I begged of him to let me know his determination. In the course of a few weeks, his father waited upon me, and said that his son had resolved upon submitting to whatever I should conceive advantageous to him. On this, he procured an empty house in my immediate neighbourhood fit to accommodate his family. On the Sunday following, I requested Dr Abercrombie to visit him, and stated that I had brought him up from Coldstream, to undergo an operation, provided he should think it adviseable. Dr A., with that kindness which characterizes him, and which I have so frequently experienced, instantly accompanied me to Penman, and after a careful examination of the tumour, concurred in the practicability of operating, and most handsomely proffered me all the assistance in his power, in case I operated myself, or should request any other surgical friend. At this time, no other practitioner † had seen him, for upwards of three years,

* A poor woman who had been attacked with flooding and premature labour, and had been almost supposed to be past delivery *per vias naturales*. I employed the crochet with success. The patient is now completely recovered, though she had been ten days in labour before I saw her.

† No person whatever was allowed to see the patient but at my request, or accompanied by one of my apprentices.

in Edinburgh. I afterwards requested Professor Ballingall, Mr Syme, and Dr Hunter, in the order named, to visit my patient. Mr Syme saw him for the first time next day, and after several consultations were held, it was agreed to operate in a short time, and accordingly Monday, the 7th July, was fixed, the mode of operating and other arrangements being satisfactorily agreed upon. I requested Mr Syme to operate, as, from his very superior anatomical and surgical attainments, I thought it most for the advantage of my patient. I employed Mr Lindsay, portrait painter, to take an accurate likeness of the diseased appearances, which he did most correctly, and which I intend for the Museum of the Royal College of Surgeons: there was also a very correct cast taken by Mr P. Handyside, which gives a most complete idea of the diseased mass. To the whole of this, he submitted with great resolution, and allowed me to take out his second bicuspid tooth on the right side, almost without uttering a complaint, the night before the operation, to allow room for the saw. I called upon him again during the course of the evening, and found him in a very desponding state of mind; but he confidently expressed a hope that every thing would terminate as I had explained to him. He slept pretty well during the night, and at six next morning, was sound asleep when I called upon him. He had some mulled porter for supper, which seemed to have soothed him. He got up, and while I was cropping off all his hair, he seemed to be more composed and satisfied about the result of the operation. One o'clock having been appointed, and all those gentlemen who had been invited having attended punctually, and every thing else being arranged, I gave him a little wine and water, with a few drops of Tr. of opium. I placed him in a chair in his adjoining room, which was of considerable size, and well lighted. The sitting posture was both the most convenient and most likely to permit the blood to escape. Penman resting his head, which I firmly held to my breast, two assistants holding his arms, Mr Syme made an incision from the right angle of the mouth to the base of the inferior maxilla in a slanting manner, and divided the bone which was laid bare at the point where I had taken out the bicuspid tooth, partly with a small saw, and partly with a

pair of cutting pliers, (these latter, however, may in some cases of diseased structure in bone be injurious, by producing splinters, although here they did not.) Professor Ballingall and myself were ready with dry sponges to compress the mouths of divided vessels, and remove blood, until Dr B. took them up, which was done with the coronary artery. I carefully kept my fingers between the divided extremities of the bone, and thus allowed blood to flow away from the mouth. Mr Syme next made a semi-circular incision from the left angle of the mouth, down along the base of the jaw, and upward as high as where the condyle ought or seemed to be, at anterior part of the left ear. During this incision, and while dissecting down this flap from off the tumour and jaw, down to the neck, several small branches of the facial and transverse branches of the temporal arteries were divided, and instantly secured. Two of these ligatures were afterwards found adhering to the tumour when removed. There being a redundancy of sound skin, Mr S. next made another incision a little curved, and higher up than the former, so as to leave a portion of the cheek, which was much distended, and firmly adhering to the tumour. This upper flap was dissected carefully up the masseter muscle divided, and thus exposed the whole surface of the tumour, and now retained principally by the mucous membrane of the mouth; and which, when divided, allowed the tumour to be moved about in almost any direction. The temporal muscle was now removed, (cut through); the articulation presented no difficulty whatever, having been completely disorganized, both coronoid and condyloid processes being in a manner obliterated, from tumour having formed encrustations round both processes, and presented a large globular body, more than any thing like the ramus of the jaw, and by cutting closely round the superior point of the tumour, all muscular adhesions were overcome with comparative ease*.

This case was by no means analogous to Mr Liston's, for although greater in extent, and of longer duration, the dis-

* Tumour weighed when removed, 4 lbs. 5 oz, and was of a very irregular and globular form. Had it not been for sawn extremity of bone, no one could have supposed that it had ever formed part of the jaw.

case in his case did not seem to have injured the very strong adhesions of the ligaments of the temporal masseter, pterygoideus, and mylo-hyoid muscles, and thus from the jaw being formerly divided, rendered the disarticulation more difficult, and may account for Mr L. cutting into the articulation from behind.—(See Medical Journal, No. ^{VI}xcv. p. 55.) There were several folds of lint laid into the cavity previously occupied by the tumour. The flaps were then brought together, and retained by twisted suture. One or two pins were also inserted in the right side, and a roller applied several times round the head, and the patient instantly lifted into bed. He bore the operation, (which only occupied twenty-five minutes, loss of blood amounting only to $\bar{3}$ xii or $\bar{3}$ xiv,) remarkably well, although he fainted twice, on his being placed in the horizontal posture, and getting a little wine soon recovered.

Mr Syme effected the operation in the most calm, deliberate, and feeling manner towards the patient, and Professor Ballingall's assistance was most invaluable.

Drs Abercrombie, J. H. Davidson, Professor Russel, Dr Hunter, Dr Mackintosh, and several of Mr Syme's and my own pupils were present; and although every one was intensely anxious, not one word or motion was made, which could in the least annoy or disturb the operator.

Penman complained very little after the operation, and his pulse ranged from 100 to 112 during several days; there was no secondary hemorrhage, or oozing of any consequence from the wounds. He had several aperient draughts, to keep the bowels open, which were rather inclined to be constipated. He raised himself up in bed on our visit the third day. Had his draughts repeated every second or third day, and on the 13th his pulse was 96, firm and regular, and he swallowed comparatively easy, although a good deal distressed with a swelling, and tension of throat and neck. I fed him by means of a funnel having a long horizontal tube, with a drainer in the neck of it, to keep back the thicker portions, the same as I employed in several cases of severe wounds of the trachea or œsophagus, from attempted suicide. In a day or two, however, I em-

ployed a tube of larger diameter, and without the drainer, as he said he now could swallow broth and porridge with ease; through the assistance of several benevolent individuals, I was enabled to supply him with every necessary, and he daily had his allowance of porter, wine, beef-tea, &c. He felt great relief from occasionally pouring quantities of cold water into his mouth, and allowing it to trickle over the tongue and wounds. About the 6th day after the operation, the swelling of the throat and fauces began to abate, but the flow of saliva from the mouth continued profuse, and escaped by the lips, which had a very œdematous appearance, from the support of the bone being removed; this was obviated to a certain extent by the firm application of a roller round the face, the wounds united by the first intention throughout greatest extent, except at the superior angle of the left flap, the pin ulcerated through, and left a considerable aperture through the cheek into the mouth, which in about three weeks gradually filled up by granulation. He went on this way, having his wounds daily dressed with adhesive strap, and his bowels kept open by aperient medicine: about a fortnight after, there was an abscess formed on the neck on the left side, which was opened freely by a bistoury, and discharged nearly a cupful of healthy pus.

About this time, he got on his clothes, and walked about the house. On the 2d of August he walked down to my house in Hope Street, without assistance, where Mr Syme and Dr Ballingall found him on their calling to accompany me to Penman's house, being little more than three weeks since his operation. I opened a small abscess, which had formed on the right side of the jaw, opposite to the extremity of the remaining portion of the maxilla, and caused him to use freely an astringent gargle of bark and alum, to lessen the flow of saliva, and to keep his head as erect as possible, as from the great weight of the diseased mass, and purulent discharge, he had for many years kept his head leaning forward on his breast, to allow saliva (and matter) to escape from his mouth, which it was desirable to divert now into its proper receptacle,

the stomach. He frequently complained of pain and acidity of stomach, sometimes occasioning dyspnœa; these symptoms were relieved by the usual remedies.

There appeared along the line of incision on the right side, a number of angry fungoid excrescences, which were kept down by *nitras argenti*, and *sulphas cupri*; and a solution of the same was kept applied to the left side, by means of a bit of lint, until the wounds had completely cicatrized. 15th August, a slight exfoliation took place from the interior portion of remaining maxilla, and considerable discharge of pus, both from where it had been lanced externally, and the interior of the mouth.

He was seized at this date, with a smart attack of cholera, which reduced him, and confined him to bed for several days, but yielded to the usual remedies. The flow of saliva is much reduced by the gargle; he can now articulate more distinctly, and calls upon me daily to have his wounds dressed. On 7th September, I pared the edges of the lips on the left side, and brought them into contact, as is done in harelip, by two pins, so as to contract the mouth a little more. This had a favourable effect, and the lips united for about an inch, and the mouth does not project quite so much as represented in Fig. 2, as the drawing was taken on 5th September, when his wounds were nearly healed, but before the insertion of the pins, and gives a pretty good idea of his present appearance, but which will still improve.

15th September.—Penman is now so far recovered, although he feels his sight rather weak, as to be thinking of following out the employment of a shoemaker; and any profits realized from the sale of this case, are intended for his benefit, to procure him materials for his trade, &c.

DR SIBBALD proposes this Winter to give instructions in Cupping. His Pupils will have the most ample opportunity of acquiring proficiency in this art, under Dr S. (and his assistants,) who studied under the most celebrated cuppers, at Hospitals in London and Paris, and has been for some years cupper to the Royal Public Dispensary, and to most of the Medical Practitioners in this city.

HOPE STREET, CHARLOTTE SQUARE,
EDINBURGH, *September* 1828.

Cupping at home every day, from 10 to 11 A. M. and from
5 to 8 o'Clock, P. M.

Fig 1.

CASE OF OSTEO-SARCOMA

of the Lower Jaw

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J. R. SIBBALD M.D.

Licentiate of E.R.C. Surgeons

&c. &c.

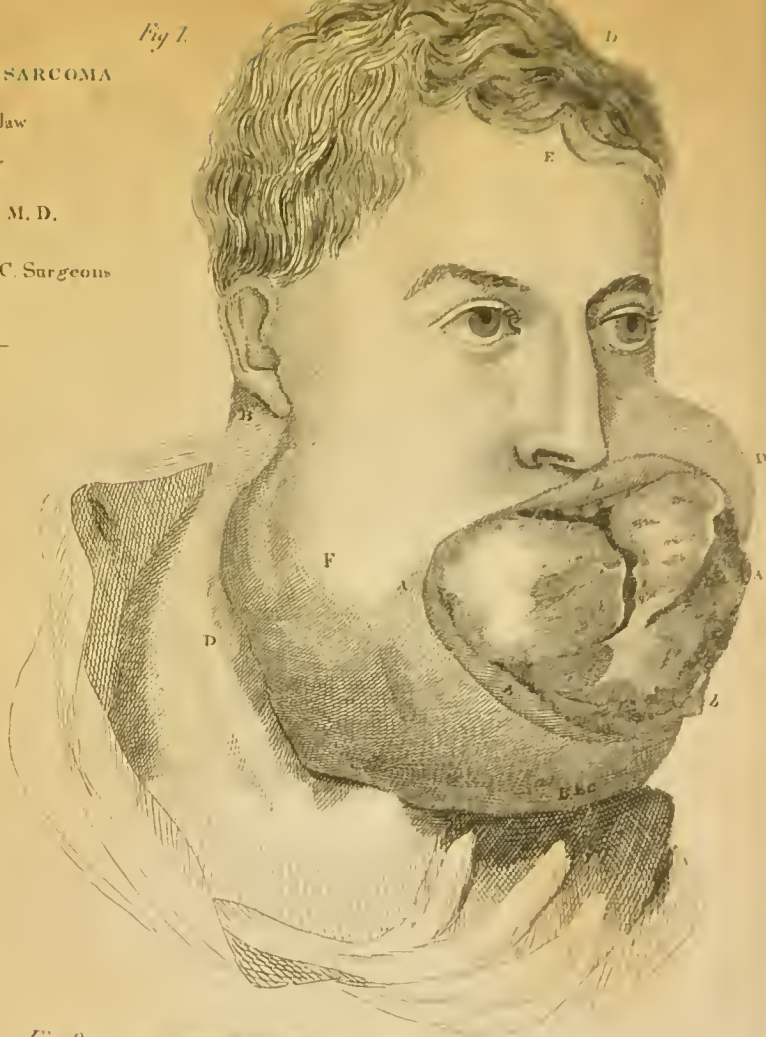


Fig 2.

